Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method comprising:

reading and parsing, by a computer system, a data processing representation, the data processing representation including a declaration reference to an executable namespace and an expression referencing a function of the executable namespace;

recognizing, by the computer system, the declaration reference and the expression;

instantiating, by the computer system, the referenced function or a function creator to create the function, then instantiate the created function; and

evaluating, by the computer system, the expression using the instantiated function.

2. (Original) The method of claim 1, wherein said declaration includes a path in said executable namespace to be followed to locate functions of the executable namespace; and said instantiation comprises following said path to locate said referenced function or the function creator of the referenced function.

3. (Original) The method of claim 2, wherein said instantiating comprises

determining if a loadable Java class exists under a fully qualified name formed with said path and said referenced function; and

if the loadable Java class exists under the fully qualified name, instantiating said loadable Java class following said path.

4. (Original) The method of claim 2, wherein said instantiating comprises

determining if a loadable resource exists under a class path formed with said path said referenced function, and a class name; and

if the loadable resource exists under the class path, retrieving said loadable resource following said path, compiling said retrieved resource, and instantiating said compiled resource.

5. (Original) The method of claim 2, wherein said instantiating comprises

determining if a loadable XSLT style sheet exists under a class path formed with said path said referenced function, and an XSLT style sheet extension; and

if the loadable resource exists under the class path, retrieving said loadable XSLT style sheet following said class path, and calling said XSLT style sheet as a function section.

6. (Original) The method of claim 2, wherein said instantiating comprises

determining if a loadable resource exists under a class path formed with said path and a function creator name of said function; and

if the loadable resource exists under the class path, retrieving said loadable resource following said path, creating said function using said loadable resource, and instantiating said created function.

7. (Original) The method of claim 1, wherein said instantiating comprises first determining if a loadable Java class corresponding to the referenced function exists, and if not, whether a compilable resource corresponding to the referenced function exists.

8. (Original) The method of claim 1, wherein said instantiating comprises first determining if a Java resource corresponding to the referenced function in executable or compilable exists, and if not whether an XSLT style sheet resource corresponding to the referenced function exists.

9. (Original) The method of claim 1, wherein said instantiating comprises first determining if an XSLT style sheet corresponding to the referenced function

resource exists, and if not whether a Java class factory corresponding to the referenced function exists.

10. (Original) The method of claim 1, wherein said method further comprises recognizing at least one other function nested within said referenced function of the expression, and said evaluation comprises recursively invoking and instantiating the nested functions.

11. (Previously Presented) An apparatus comprising:

at least one storage unit having stored thereon programming instructions designed to

read and parse a data processing representation, the data processing representation including a declaration reference to an executable namespace and an expression referencing a function of the executable namespace;

recognize the declaration reference and the expression;

instantiate the referenced function or a function creator to create the function, then instantiate the created function; and

evaluate the expression using the instantiated function; and

at least one processor coupled to said at least one storage unit to execute said programming instructions.

12. (Original) The apparatus of claim 11, wherein said programming instructions are designed to recognize said declaration having including a path in said executable namespace to be followed to locate functions of the executable namespace; and to effectuate said instantiation by following said path to locate said referenced function or the function creator of the referenced function.

13. (Original) The apparatus of claim 12, wherein said programming instructions are designed to

determine if a loadable Java class exists under a fully qualified name formed with said path and said referenced function, and

if the loadable Java class exists under the fully qualified name, instantiate said loadable Java class following said path.

14. (Original) The apparatus of claim 12, wherein said programming instructions are designed to

determine if a loadable resource exists under a class path formed with said path said referenced function, and a class name, and

if the loadable resource exists under the class path, retrieve said loadable resource following said path, compile said retrieved resource, and instantiate said compiled resource.

15. (Original) The apparatus of claim 12, wherein said programming instructions are designed to

determine if a loadable XSLT style sheet exists under a class path formed with said path said referenced function, and an XSLT style sheet extension, and

if the loadable resource exists under the class path, retrieve said loadable XSLT style sheet following said class path, and call said XSLT style sheet as a function section.

16. (Previously Presented) The apparatus of claim 12, wherein said programming instructions are designed to

determine if a loadable resource exists under a class path formed with said path and a function creator name of said function, and

if the loadable resource exists under the class path, retrieve said loadable resource following said path, create said function using said loadable resource, and instantiate said created function.

17. (Original) The apparatus of claim 11, wherein said programming instructions are designed to effectuate said instantiation by first determining if a loadable Java

class corresponding to the referenced function exists, and if not, whether a compilable resource corresponding to the referenced function exists.

18. (Original) The apparatus of claim 11, wherein said programming instructions are designed to effectuate said instantiation by first determining if a Java resource corresponding to the referenced function in executable or compilable exists, and if not whether an XSLT style sheet resource corresponding to the referenced function exists.

19. (Original) The apparatus of claim 11, wherein said programming instructions are designed to effectuate said instantiation by first determining if an XSLT style sheet resource corresponding to the referenced function exists, and if not whether a Java class factory corresponding to the referenced function exists.

20. (Original) The apparatus of claim 11, wherein said programming instructions are further designed to recognize one or more functions nested within said referenced function of the expression, and recursively invoke and instantiate the nested functions.

21. (Previously Presented) An apparatus comprising:

means for reading and parsing a data processing representation, the data processing representation including a declaration reference to an executable namespace, including a path within the executable namespace, and an expression referencing a function of the executable namespace;

means for recognizing the declaration reference and the expression;

means for instantiating, following said path, the referenced function or a function creator to create the function, then instantiate the created function; and

means for evaluating the expression using the instantiated function.